

ATTACHMENT G – NOTICE OF INTENT

MAR 18 2016  
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WATER QUALITY ORDER NO. 2011-0002-DWQ  
GENERAL PERMIT NO. CAG 990004

STATEWIDE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT  
FOR BIOLOGICAL AND RESIDUAL PESTICIDE DISCHARGES  
TO WATERS OF THE UNITED STATES  
FROM VECTOR CONTROL APPLICATIONS

I. NOTICE OF INTENT STATUS (see Instructions)

|   |
|---|
| Mark only one item <input checked="" type="checkbox"/> A. New Applicator <input type="checkbox"/> B. Change of Information: WDID# _____ |
| <input type="checkbox"/> C. Change of ownership or responsibility: WDID# _____  |

II. DISCHARGER INFORMATION

|   |   |                              |                          |
|---|---|------------------------------|--------------------------|
| A. Name<br>Northwest Mosquito + Vector Control District |   |                              |                          |
| B. Mailing Address<br>1966 Compton Ave                  |   |                              |                          |
| C. City<br>Corona                                       | D. County<br>Riverside                          | E. State<br>CA               | F. Zip Code<br>92881     |
| G. Contact Person<br>Major Dhillon                      | H. Email address<br>mdhillon@northwestmvecd.org | I. Title<br>District Manager | J. Phone<br>951-340-9792 |

III. BILLING ADDRESS (Enter Information only if different from Section II above)

|                    |           |          |             |
|--------------------|-----------|----------|-------------|
| A. Name            |           |          |             |
| B. Mailing Address |           |          |             |
| C. City            | D. County | E. State | F. Zip Code |
| G. Email address   | H. Title  | I. Phone |             |

RECEIVED

MAR 18 2016

G-1

**IV. RECEIVING WATER INFORMATION**

A. Biological and residual pesticides discharge to (check all that apply)\*:

1. Canals, ditches, or other constructed conveyance facilities owned and controlled by Discharger.  
 Name of the conveyance system: \_\_\_\_\_

2. Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger.  
 Owner's name: Any source breeding vectors within District jurisdiction.  
Name of the conveyance system: \_\_\_\_\_ *map attached*

3. Directly to river, lake, creek, stream, bay, ocean, etc.  
 Name of water body: Any source breeding vectors within District jurisdiction.  
\_\_\_\_\_ *map attached*

\* A map showing the affected areas for items 1 to 3 above may be included.

B. Regional Water Quality Control Board(s) where application areas are located  
(REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9): Region 8  
(List all regions where pesticide application is proposed.)

A map showing the locations of A1-A3 in each Regional Water Board shall be included.

**V. PESTICIDE APPLICATION INFORMATION**

A. Target Organisms:  Vector Larvae  Adult Vector

B. Pesticides Used: List name, active ingredients and, if known, degradation by-products  
See attached Pesticide Application Plan

C. Period of Application: Start Date July 1, 2016 End Date July 1, 2018/ongoing

D. Types of Adjuvants Added by the Discharger:

**VI. PESTICIDES APPLICATION PLAN**

A. Has a Pesticides Application Plan been prepared?\*

Yes  No

If not, when will it be prepared? \_\_\_\_\_

\* A copy of the PAP shall be included with the NOI.

B. Is the applicator familiar with its contents?

Yes  No

**VII. NOTIFICATION**

Have potentially affected governmental agencies been notified?

Yes     No

\* If yes, a copy of the notifications shall be attached to the NOI.

**VIII. FEE**


Have you included payment of the filing fee (for first-time enrollees only) with this submittal?

Yes     NO     NA

**IX. CERTIFICATION**

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I certify that the provisions of the General Permit, including developing and implementing a monitoring program, will be complied with."

A. Printed Name: Major Dhillon, PhD

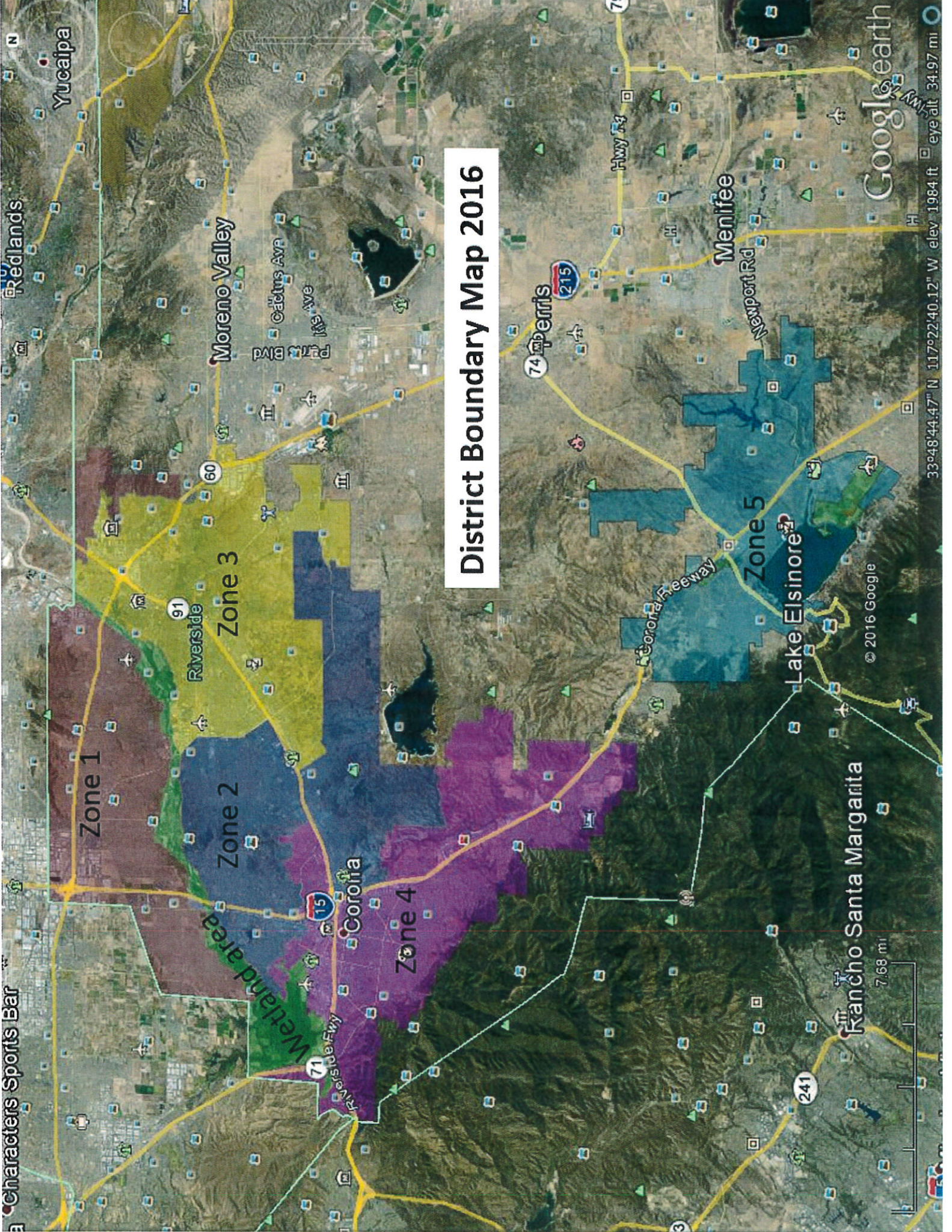
B. Signature: 

Date: 3/9/16

C. Title: District Manager

**X. FOR STATE WATER BOARD USE ONLY**

|                         |                            |                     |
|-------------------------|----------------------------|---------------------|
| WDID:                   | Date NOI Received:         | Date NOI Processed: |
| Case Handler's Initial: | Fee Amount Received:<br>\$ | Check #:            |



# District Boundary Map 2016

Google Earth

33°48'44.47" N 117°22'40.12" W elev 1984 ft eye alt 34.97 mi

Rancho Santa Margarita  
7.68 mi

© 2016 Google



# NORTHWEST MOSQUITO AND VECTOR CONTROL DISTRICT

PUBLIC HEALTH GOVERNMENT AGENCY

## Notice of Intent to Apply Public Health Pesticides for Vector Control Purposes to Surface Waters and Waters of the U.S. Within Western Riverside County.

President  
Jordan Ehrenkranz  
City of Canyon Lake

Vice President  
Brad Hancock  
City of Jurupa Valley

Secretary  
Gary Bradley, Ph.D.  
City of Riverside

Trustee  
Berwin Hanna  
City of Norco

Trustee  
Bill Link  
City of Eastvale

Trustee  
George Read  
County of Riverside

Trustee  
Brian Tisdale  
City of Lake Elsinore

Trustee  
Karen Alexander  
City of Corona

Major S. Dhillon, Ph.D.  
District Manager

- The Northwest Mosquito & Vector Control District intends to make public health pesticide applications to, over and adjacent to constructed conveyances, surface waters and other waters of the U.S. owned and controlled by an entity other than the District for vector control purposes per the requirements of the General NPDES Permit for Biological and Residual Pesticide Discharges for Vector Control Applications.
- The District's activities are conducted year-round within a 300 square mile area situated in the western portion of the County of Riverside. The areas that will be actually or potentially impacted by District activities include the following: the incorporated cities of Calimesa, Canyon Lake, Corona, Lake Elsinore, Eastvale, Jurupa Valley and Riverside. The District also controls vectors in northwest portion of Riverside County including the following areas of Coronita, El Cerrito, Glen Avon, High Grove, Home Gardens, Woodcrest and other unincorporated areas within the boundaries of the Northwest Mosquito and Vector Control District. Additionally the District may be requested to provide vector control in the sphere of influence area (presently vector control is provided by the County). In addition to the above mentioned the District at times may implement vector control methods in areas adjacent to the District jurisdiction pursuant the California Health and Safety Code.
- The NPDES Permit requirements for listing of the Public Health Pesticides anticipated to be used were modified from the previous permit, to the new permit which will be issued in 2016. The newer requirements specify that any pesticide product can be used that contains approved active ingredients, provided all pesticide label restrictions and instructions are followed. In addition, pesticides which fall under the "minimum risk" category can be used. The minimum risk pesticides have been exempted from FIFRA requirements. The following tables list the active ingredients approved for the FIFRA regulated pesticides.

1966 Compton Ave. • Corona, CA 92881-3318 • (951) 340-9792 • FAX (951) 340-2515

e.mail: [office@northwestmvcd.org](mailto:office@northwestmvcd.org)

[www.northwestmvcd.org](http://www.northwestmvcd.org)



# NORTHWEST MOSQUITO AND VECTOR CONTROL DISTRICT

PUBLIC HEALTH GOVERNMENT AGENCY

## Active Ingredients for larval mosquito control:

|  |
|--|
| <i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> ( <i>Bti</i> ) |
| <i>Bacillus sphaericus</i> ( <i>Bs</i> )                               |
| Methoprene   |
| Monomolecular Films  |
| Petroleum Distillates  |
| Spinosad   |
| Temephos   |

## Active Ingredients for adult mosquito control:

|  |
|--|
| Deltamethrin                                   |
| Etofenprox                                     |
| Lambda-Cyhalothrin                             |
| Malathion                                      |
| Naled  |
| N-octyl bicycloheptene dicarboximide (MGK-264) |
| Piperonyl butoxide (PBO)                       |
| Permethrin                                     |
| Prallethrin                                    |
| Pyrethrin                                      |
| Resmethrin                                     |
| Sumithrin                                      |

- The purpose of the use of larvicide and adulticide pesticides containing these active ingredients is for the control of larval and adult mosquitoes to minimize the threat of mosquito-borne diseases and biting annoyances.
- The general time period for the application of the pesticides is January through December, 2016. Locations of expected use will be constructed conveyances, surface waters and other waters of the U.S. located within western Riverside County.

President  
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City of Corona

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District Manager

- There are no known water use restrictions or precautions during treatment.
- Interested persons may contact the District at 1-951-340-9792 for additional information.

Date: January 25<sup>th</sup>, 2016

Michelle Brown, PhD  
Vector Ecologist

**U.S. Army Corps of Engineers**

Los Angeles District  
915 Wilshire Blvd.  
Los Angeles, CA 90017  
Questions: 213-452-3333  
[http://www.spl.usace.army.mil/  
publicaffairs.spl@usace.army.mil](http://www.spl.usace.army.mil/publicaffairs.spl@usace.army.mil)

**Regional 6 Office –**

**Dept. of Fish & Game**

3602 Inland Empire Blvd.  
Suite C-220  
Ontario, CA 91764  
(909) 484-0167  
(909) 481-2945 fax  
<https://www.wildlife.ca.gov/regions/6>  
[AskRegion6@wildlife.ca.gov](mailto:AskRegion6@wildlife.ca.gov)

**California Department  
of Pesticide Regulations**

1001 I Street  
P.O. Box 4015  
Sacramento, CA 95812-4015  
916-445-4300  
916-324-1452 fax  
<http://www.cdpr.ca.gov/dprcontact.htm>  
[Chris.reardon@cdpr.ca.gov](mailto:Chris.reardon@cdpr.ca.gov)

**City of Calimesa**

908 Park Avenue  
Calimesa, CA 92320  
909-795-9801  
909-795-4399 fax  
[http://cityofcalimesa.net/  
agignac@cityofcalimesa.net](http://cityofcalimesa.net/agignac@cityofcalimesa.net)

**The City of Canyon Lake**

31516 Railroad Canyon Rd.  
Canyon Lake, CA 92587  
(951) 244-2955  
(951) 246-2022 fax  
[http://www.cityofcanyonlake.org/  
info@cityofcanyonlake.com](http://www.cityofcanyonlake.org/info@cityofcanyonlake.com)

**City of Corona**

400 S. Vicentia Ave.  
Corona, CA 92882  
(951) 736-2400  
(951) 736-2445 fax  
<http://discovercorona.com/Contact-Us.aspx>  
[finance@discovercorona.com](mailto:finance@discovercorona.com)



**City of Eastvale**

12363 Limonite Ave. Suite 910  
Eastvale, CA 91752  
951-361-0900  
951-361-0888 fax  
<http://eastvaleca.gov/i-want-to-/contact-the-city>  
[info@eastvaleca.gov](mailto:info@eastvaleca.gov)

**City of Jurupa Valley**

8930 Limonite Avenue  
Jurupa Valley, CA 92509  
951-332-6464  
951-332-6995 fax  
<http://jurupavalley.org/Contact-Us/Location-and-Phone-Numbers>  
[trollings@jurupavalley.org](mailto:trollings@jurupavalley.org)

**The City of Lake Elsinore**

130 South Main Street  
Lake Elsinore, CA 92530  
(951) 674-3124  
(951) 674-2392 fax  
<http://lake-elsinore.org/index.aspx?page=431>  
[cityhall@lake-elsinore.org](mailto:cityhall@lake-elsinore.org)

**City of Norco**

2870 Clark Avenue  
Norco, CA 92860  
951-735-3900  
951-270-5622 fax  
<http://ci.norco.ca.us/contact/default.asp>  
[msanchez@ci.norco.ca.us](mailto:msanchez@ci.norco.ca.us)

**Corona Municipal Airport**

755 Public Safety Way  
Corona, CA 92880  
951-736-2289  
<http://www.discovercoronadwp.com/Maintenance/airport.shtml>  
[curtiss@ci.corona.ca.us](mailto:curtiss@ci.corona.ca.us)

**Eastern Municipal Water District**

2270 Trumble Road  
P.O. Box 8300  
Perris, CA 92572-8300  
951- 928-3777  
951- 928-6177 fax  
<http://emwd.org/how-do-i/contact-emwd>  
[allother@emwd.org](mailto:allother@emwd.org)

**Elsinore Murrieta Anza Resource**

**Conservation District**

P.O. Box #2078

Temecula, CA 92593

951-387-8992

<http://www.emarcd.org/index.php/about/contact>

[emarcd@verizon.net](mailto:emarcd@verizon.net) or [rose.corona@emarcd.org](mailto:rose.corona@emarcd.org)

**Elsinore Valley Municipal**

**Water District**

P.O. Box #3000

31315 Chaney St.

Lake Elsinore, CA 92530

951- 674-3146

<http://www.evmwd.com/contact/default.asp>

[ihaveavoice@evmwd.net](mailto:ihaveavoice@evmwd.net)

**Flabob Airport**

4130 Mennes Avenue, #24

Riverside, CA 92509

951 683-2309

951-684-2309 Fax

<http://www.flabobairport.org/contact-us/>

[bill@tomwathencenter.org](mailto:bill@tomwathencenter.org) or [nina@tomwathencenter.org](mailto:nina@tomwathencenter.org)

**Inland Empire Resource Conservation District**

25864-K Business Center Dr.

Redlands, CA 92374

909- 799-7407

<http://iercd.org/>

[info@iercd.org](mailto:info@iercd.org)

**Temescal Valley Water District**

22646 Temescal Canyon Rd.

Temescal Valley, CA 92883

951- 277-1414

951- 277-1419 Fax

[http://www.temescalvwd.com/Contact\\_TVWD.cfm](http://www.temescalvwd.com/Contact_TVWD.cfm)

[jeffp@temescalvwd.org](mailto:jeffp@temescalvwd.org)

**Norco California**

**Rehabilitation Center**

P.O. Box 1841

Norco, CA 92860-0991

951- 737-2683

[http://www.cdcr.ca.gov/Facilities\\_Locator/CRC.html](http://www.cdcr.ca.gov/Facilities_Locator/CRC.html)

**N/A**

**Norco Navel Weapons Base**

**NAVSEA Warfare Center**

**Corona Division**

P.O. Box 5000

Corona, CA 92878-5000

951-393-5000 or 951-393-4814

951-273-4205 Fax

<http://www.navsea.navy.mil/Home/WarfareCenters/NSWCCorona/ContactUs.aspx>

**N/A**

**Orange County Water District**

P.O. Box 8300

Fountain Valley, CA 92728-8300

714-378-3200

714-378-3373 fax

<http://www.ocwd.com/contact-us/>

[info@ocwd.com](mailto:info@ocwd.com)

**Orange County Flood Control**

**H.G. Osborne Building**

P.O. Box #4048

Santa Ana, CA 92702-4048

714-647-3999

714-834-4572 fax

<http://ocflood.com/contact/>

**N/A**

**Riverside-Corona Resource Conservation District**

4500 Glenwood Dr., Building A

Riverside, CA 92501

951.683.7691

951.683.3814 fax

<http://rcrcd.org/>

[rcrcd@rcrcd.org](mailto:rcrcd@rcrcd.org)

**Riverside County**

**Agricultural Commissioner**

4080 Lemon Street

P.O. Box 1089

Riverside, CA 92502-1089

951- 955-3000

951- 955-3047

<http://co.riverside.ca.us/MobileApp/Directory.aspx>

[agdept@co.riverside.ca.us](mailto:agdept@co.riverside.ca.us)

**Riverside County Flood Control & Water Conservation District**

1995 Market Street

Riverside, CA 92501

951-955-1200

951- 788-9965 fax

<http://rcflood.org/>

[mbiloki@rcflood.org](mailto:mbiloki@rcflood.org)

**Riverside County Parks  
& Recreation Department**

4600 Crestmore Rd.

Jurupa Valley, CA 92509

951- 955-4310

[http://www.rivcoparks.org/about-us/about-us/  
parks-web@rivcoparks.org](http://www.rivcoparks.org/about-us/about-us/parks-web@rivcoparks.org)

**Riverside County Public Works**

3900 Main Street – 4<sup>th</sup> Floor

Riverside, CA 92522

951- 826-5341

951-826-2046 fax

[http://riversideca.gov/  
kstewart@riversideca.gov](http://riversideca.gov/kstewart@riversideca.gov)

**Santa Ana Regional  
Water Control Board**

Region 8

3737 Main Street #500

Riverside, CA 92501

951- 782-4130

951- 781-6288 fax

[http://www.swrcb.ca.gov/santaana/about\\_us/contact\\_us.shtml](http://www.swrcb.ca.gov/santaana/about_us/contact_us.shtml)  
[region8info@waterboards.ca.gov](mailto:region8info@waterboards.ca.gov)

**Santa Ana Watershed Association**

P.O. Box 5407

Riverside, CA 92517

951- 780-1012

951- 780-5893

<http://sawatershed.org>  
[maria@sawatershed.org](mailto:maria@sawatershed.org)

**US Fish & Wild Life Service Pacific South East Region 8**

**Pacific Southwest Regional Office**

2800 Cottage Way – Room W2606

Sacramento, CA 95825

916-414-6464

916-414-6486 Fax

<http://www.fws.gov/cno/orgs-offices.html>  
[fw8commentsbox@fws.gov](mailto:fw8commentsbox@fws.gov)

**Tina English**

**Deputy Public Works Director**

**City of Riverside**

3900 Main Street #4

Riverside, CA 92501

<https://www.riversideca.gov/publicworks/>  
[tenglish@riversideca.gov](mailto:tenglish@riversideca.gov)

**Lance Natsuhara**  
**OC Public Works / Santa Ana River ProjectDivision**  
P.O. Box 4048  
Santa Ana, CA 92702-4048  
714-647-3999  
<http://ocflood.com/contact>  
[Lance.natsuhara@ocpw.ocgov.com](mailto:Lance.natsuhara@ocpw.ocgov.com)

**Orange County Public Works**  
**P.O. Box 4048**  
**Santa Ana, CA 92702-4048**  
714-647-3999  
<http://ocflood.com/contact>

**City of Riverside**  
**3900 Main Street, 3<sup>rd</sup> Floor**  
**Riverside, CA 92522**  
951-826-5633  
951-826-2570 Fax  
<http://www.riversideca.gov/code/callcenter@riversideca.gov>

**The NPDES Permit requires a Pesticides Application Plan (PAP) that contains the following elements:**

1. **Description of the target area and adjacent areas, if different from the water body of the target area;**  
 The Northwest Mosquito and Vector Control District is located in the Western portion of the County of Riverside. Please see District Boundary Map.
  - Areas targeted in the prior years include: Santa Ana River and its tributaries, including Prado Basin and Hidden Valley Wildlife Area; Lake Norconian, Temescal Wash and its tributaries including Gunnerson Pond; Lake Elsinore and Canyon Lake.

2. **Discussion of the factors influencing the decision to select pesticide applications for mosquito control;**  
 Please see the Best Management Practices for Mosquito Control in California.

On a regular basis the District educates public and owners of mosquito breeding sources regarding source reduction and vegetation management. The District also communicates regularly with property owners and land managers for the purpose of preventing mosquito breeding. Control measures become necessary when source reduction has failed or have not been implemented and mosquito populations rise above acceptable levels. The judicious use of pesticides is considered after reviewing surveillance data to determine if the vector problem threatens the public's health or quality of life.

3. **Type(s) of pesticides used, the method in which they are applied, and if applicable, the adjuvants and surfactants used;**
  - a. The NPDES Permit for Biological and Residual Pesticide Discharges to Waters of the US from Vector Control Applications was amended to list the approved active ingredients rather than having specific products named. All pesticide label restrictions and instructions will be followed for pesticides which contain the active ingredients listed below. In addition, pesticides which fall under the "minimum risk" category may be used. The minimum risk pesticides have been exempted from FIFRA requirements. Products will be applied by truck, backpack, hand can, helicopter, and fixed wing aircraft.

| <b>Active Ingredients List</b>  |
|---|
| <i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> ( <i>Bti</i> )        |
| <i>Bacillus sphaericus</i> ( <i>Bs</i> ) ( <i>Lysinibacillus sphaericus</i> ) |
| Methoprene  |
| Monomolecular Films   |
| Petroleum Distillates   |
| Spinosad  |
| Temephos  |

| <b>Active Ingredients List</b>   |
|--|
| Deltamethrin   |
| Etofenprox   |
| Lambda-Cyhalothrin   |
| Malathion  |
| Naled  |
| N-octyl bicycloheptene dicarboximide (MGK-264)   |
| Piperonyl butoxide (PBO)   |
| Permethrin   |
| Prallethrin  |
| Pyrethrin  |
| Resmethrin   |
| Sumithrin  |
| Any minimum risk category pesticides that are FIFRA exempt and registered for use in the California and used in a manner specified in 40 CFR section 152.25. |

**4. Description of the types and locations of the anticipated application area\* and the target area to be treated by the Discharger, recognizing that, with vector control, the precise locations may not be known until after surveillance;**

Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the District's preferred solution, and whenever possible the District works with property owners to effect long-term solutions to reduce or eliminate the need for continued pesticide applications as described in Best Management Practices for Mosquito Control in California. In situations where Best Management Practices for Mosquito Control in California does not provide clear direction, the District technicians in consultation with supervisory staff may use their judgment to implement control measure. The typical sources treated by this District include:

- neglected swimming pools and backyard sources
- dairy waste water lagoons
- pastures
- irrigated agricultural fields
- unmaintained above and underground stormwater BMP devices

- natural and manmade riparian habitats
- manmade wetlands
- persistently clogged street drains
- flood control channels
- miscellaneous standing water sources

**5. Other control methods used (alternatives) and their limitations;**

With all mosquito or other vector sources, the NWMVCD's first goal is to look for ways to eliminate the sources, or, if that is not practical, look for ways to reduce the vectors thru land and water management, public education, and biological control. The most commonly used methods and their limitations are included in the Best Management Practices for Mosquito Control in California.

The NWMVCD's best management practices are based on integrated vector management (IVM). The District emphasizes in promoting public awareness of removing standing water to curtail mosquito breeding. Neglected swimming pools must be restored to normal operational conditions or drained. Above-ground BMPS, e.g. Swales must be kept weed and debris free and must not allow standing water more than 96 hours. Underground BMPS, e.g. different types of vaults, must be cleaned out regularly of all debris. Wherever applicable, mosquitofish are planted in neglected swimming pools in vacant properties, fish ponds, water troughs or ponds in defunct dairies, or other permanent water sources that are not connected to any of the water ways. Use of pesticides to control or prevent mosquito breeding is always the last resort.

**6. Approximately how much product is anticipated to be used and how this amount was determined**

The need to apply product is determined by surveillance. Products are applied according to the label specifications which have already been determined by EPA under FIFRA. Actual use varies annually depending on environmental factors, mosquito abundance and the presence of potential breeding sources. The pesticide amounts presented below are estimates for usage within Waters of the US within our District for 2015.

**Pesticides Estimates Applied by NWMVCD for Mosquito Control within Waters of the US in 2015.**

| Active Ingredient (AI)          | Usage in 2015 |
|---------------------------------|---------------|
| Poly-w-hydroxy (agnique) Liquid | 0.25 Gallon   |
| Bti liquid                      | 111 Gallons   |
| Bti granule                     | 6,820 Lbs     |
| Bs granule                      | 5,292 Lbs     |
| Bti/Bs granule                  | 5,844 Lbs     |
| S-methoprene                    | 140 Lbs       |
| Mineral oil                     | 7.75 Gallons  |
| Spinosad                        | 4.7 Gallons   |
| Permethrin & Piperonyl Butoxide | 3.9 Gallons   |
| Bs WDG                          | 219 Lbs       |



**7. Representative monitoring locations\* and the justification for selecting these monitoring locations**

Please see the MVCAC NPDES Coalition Monitoring Plan

**8. Evaluation of available BMPs to determine if there are feasible alternatives to the selected pesticide application project that could reduce potential water quality impacts; and**

Examples of alternatives to pesticide application include:

- Coordinating with other agencies, such as Riverside County Vector Control Program, Riverside County & Orange County Flood Control Districts, the cities and other governmental agencies to maintain flowing water in flood control channels by removing vegetation
- Coordinate with Eastern Municipal Water District to minimize vegetation and maintain access to wetland treatment ponds for vector control personnel and equipment.
- Coordinate with Orange County Water District to minimize vegetation and maintain access to wetland treatment ponds for vector control personnel and equipment.
- Coordinate with Riverside County Parks and Recreation to minimize vegetation and maintain access to wetland treatment ponds for vector control personnel and equipment.
- Coordinate with Conservation Districts to implement guidelines on new and current mitigation projects.
- Coordinating with US Army Corp of Engineers to remove vegetation and debris from riparian habitat to allow for unobstructed water flow.
- Enforcing vegetation control in retention and detention ponds
- Inspecting and enforcing the practice of turning over and spread thinly of cow manure every 3 days to prevent fly breeding
- Enforcing the rule that property owners are responsible for weed abatement
- Inspecting and enforcing regular clean out of underground BMP devices by property owners or property management companies
- Enforcement of California Health and Safety Code section 2060-2067

Also please see the Best Management Practices for Mosquito Control in California

**9. Please see the Best Management Practices for Mosquito Control in California**  
The Northwest Mosquito and Vector Control District's BMPs are described in the Best Management Practices for Mosquito Control in California and in the California

Mosquito-borne Virus Surveillance and Response Plan. Specific elements have been highlighted below under items a-g.

**a. Measures to prevent pesticide spill:**

District staff ensures equipment used to apply pesticides work properly by inspecting before each use and weekly. Devices to contain spills are present in all vehicles that carry pesticides and areas where pesticides are stored. Staff is trained annually and as necessary to prevent and contain spills.

**b. Measures to ensure that only a minimum and consistent amount is used;**

Equipment used to apply pesticides is calibrated at least once per year or as necessary, as required by the MOU with the CA Dept. of Public Health.

**c. Strict and accurate inventory control of pesticides in storage**

Inventory check and update of quantities of pesticides in storage is done monthly. Records of discharge of pesticides are kept accurately and timely via handheld mobile device and logged into a central computerized database.

**d. A plan to educate Coalition's or Discharger's staff and pesticide applicator on any adverse effects from the pesticide application;**

Applicators receive training at least annually and as necessary.

**e. Descriptions of specific BMPs for each spray mode, e.g. aerial spray, truck spray, hand spray, etc.; cease and desist order;**

District calibrates all equipment used to apply pesticides at least annually. Records of treatments are stored on data base and reviewed daily for accuracy. Ultra Low Volume (ULV) equipment is calibrated to apply pesticides according to label requirements. Aerial equipment used to apply pesticides is calibrated by the contractor. Any aircraft that applies pesticides is requested to use the best available system to correctly apply the pesticide.

**f. Description of specific BMPs for each pesticide product used; and**

Please see attached: Best Management Practices for Mosquito Control in California

**g. Description of specific BMPs for each type of environmental setting (agriculture, urban, and wetlands).**

Please see attached: Best Management Practices for Mosquito Control in California

**10. Identification of the problem. Prior to first pesticide application covered under this General Permit that will result in a discharge of biological and residual pesticides to waters of the US, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the Discharger must do the following for each vector management area:**

**a. If applicable, establish densities for larval and adult vector populations to serve as action threshold(s) for implementing pest management strategies;**

The Northwest Mosquito and Vector Control District staff only apply pesticides to sources of mosquitoes that represent threats to public health or quality of life. The presence of any mosquito may necessitate treatment, however higher thresholds may be applied depending on the agency’s resources, disease activity, surveillance data, or local needs. Treatment thresholds are based on a combination of one or more of the following criteria:

- Mosquito species present
- Mosquito stage of development
- Pest, nuisance, or disease potential
- Disease activity
- Mosquito abundance
- Flight range
- Proximity to populated areas
- Size of source
- Presence/absence of natural enemies or predators
- Presence of sensitive/endangered species or habitats.

**b. Identify target vector species to develop species-specific pest management strategies based on developmental and behavioral considerations for each species;**

| <b>Mosquitoes Present in the Northwest Mosquito and Vector Control District</b> |  |
|---|--|
| <i>Culex quinquefasciatus</i>   | <i>Culiseta paticeps</i>               |
| <i>Culex restuans</i>   | <i>Anopheles hermsi</i>                |
| <i>Culex stigmatosoma</i>   | <i>Anopheles fransiscanus</i>          |
| <i>Culex tarsalis</i>   | <i>Aedes sierrensis</i>                |
| <i>Culex erythrothorax</i>  | <i>Anopheles punctipennis</i>          |
| <i>Culex thriambus</i>  | <i>Aedes washinoi</i>                  |
| <i>Culiseta incidens</i>  | <i>Aedes vexans</i>                    |
| <i>Culiseta inornata</i>  | <i>Any introduction of new species</i> |
| <i>Aedes aegypti</i>  |  |

Please see the [Best Management Practices for Mosquito Control in California 2012](#) and the [California Mosquito-borne Virus Surveillance and Response Plan 2015](#).

**c. Identify known breeding areas for source reduction, larval control program, and habitat management; and**

Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the agency’s preferred solution, and whenever possible the agency works with property owners to implement long-term solutions to reduce or eliminate the need for continued pesticide applications as described in the [Best Management Practices for Mosquito Control in California](#).

**d. Analyze existing surveillance data to identify new or unidentified sources of vector problems as well as areas that have recurring vector problems.**

This is included in the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan that the agency uses. The Northwest Mosquito and Vector Control District continually collects adult and larval mosquito surveillance data, dead bird reports, and sentinel chicken test results, and monitors regional mosquito-borne disease activity detected in humans, horses, birds, and/or other animals, and uses these data to guide mosquito control activities.

**11. Examination of Alternatives. Dischargers shall continue to examine alternatives to pesticide use in order to reduce the need for applying larvicides that contain temephos and for spraying adulticides. Such methods include:**

**a. Evaluating the following management options, in which the impact to water quality, impact to non-target organisms, vector resistance, feasibility, and cost effectiveness should be considered:**

- No action
- Prevention
- Mechanical or physical methods
- Cultural methods
- Biological control agents
- Pesticides

**If there are no alternatives to pesticides, dischargers shall use the least amount of pesticide necessary to effectively control the target pest.**

District uses the principles and practices of Integrated Vector Management (IVM) as described on pages 26 and 27 of the Best Management Practices for Mosquito Control in California. As stated in item #10 above, locations where vectors may exist are assessed, and the potential for using alternatives to pesticides is determined on a case-by-case basis. Commonly considered alternatives include: 1) Eliminate artificial sources of standing water; 2) Ensure temporary sources of surface water drain within four days (96 hours) to prevent adult mosquitoes from developing; 3) Control vegetation growth in ponds, ditches, and wetlands; 4) Make recommendations for design of facilities and water conveyance and/or holding structures to minimize the potential for producing mosquitoes; and 5) Use appropriate biological control methods that are available. Additional alternatives to using pesticides for managing mosquitoes are listed on pages 4-19 of the Best Management Practices for Mosquito Control in California.

Implementing preferred alternatives depends on a variety of factors including availability of agency resources, cooperation with stakeholders, coordination with other regulatory agencies, and the anticipated efficacy of the alternative. If a pesticide-free alternative does not sufficiently reduce the risk to public health, pesticides are considered, beginning with the least amount necessary to effectively control the target vector.

**b. Applying pesticides only when vectors are present at a level that will constitute a nuisance.**

This describes the District's existing integrated vector management (IVM) program, as well as the practices described in the California Mosquito-borne Virus Surveillance and Response Plan and Best Management Practices for Mosquito Control in California that are used by this agency.

A "nuisance" is specifically defined in California Health and Safety Code (HSC) §2002(j). This definition allows vector control agencies to address situations where even a low number of vectors may pose a substantial threat to public health and quality of life. In practice, the definition of a "nuisance" is generally only part of a decision to apply pesticides to areas covered under this permit. As summarized in the California Mosquito-borne Virus Surveillance and Response Plan, the overall risk to the public when vectors and/or vector-borne disease are present is used to select an available and appropriate material, rate, and application method to address that risk in the context of our IVM program.

**12. Correct Use of Pesticides**

**Coalition's or Discharger's use of pesticides must ensure that all reasonable precautions are taken to minimize the impacts caused by pesticide applications. Reasonable precautions include using the proper spraying techniques and equipment, taking account of weather conditions and the need to protect the environment.**

This is an existing practice of the District, and is required to comply with the Department of Pesticide Regulation's (DPR) requirements and the terms of our California Department of Public Health (CDPH) Cooperative Agreement. All pesticide applicators receive annual safety and spill training in addition to their regular continuing education.

**13. If applicable, specify a website where public notices, required in Section VIII.B, may be found.**

[www.northwestmvecd.org](http://www.northwestmvecd.org).

**References:**

Best Management Practices for Mosquito Control in California. 2012. Available by download from the California Department of Public Health—Vector-Borne Disease Section at <http://www.westnile.ca.gov/resources.php> under the heading *Mosquito Control and Repellent Information*. Copies may be also requested by calling the California Department of Public Health—Vector-Borne Disease Section at (916) 552-9730 or the Northwest Mosquito and Vector Control District at (951) 340-9792.

California Mosquito-borne Virus Surveillance and Response Plan. 2015. [Note: this document is updated annually by CDPH]. Available by download from the California Department of Public Health—Vector-Borne Disease Section at <http://www.westnile.ca.gov/resources.php> under the heading *Response Plans and Guidelines*. Copies may be also requested by calling the California Department of Public

Health—Vector-Borne Disease Section at (916) 552-9730 or the Northwest Mosquito and Vector Control District at (951) 340-9792.

MVCAC NPDES Coalition Monitoring Plan.

